

Serial Number 09/553,108 Filed April 20, 2000
Amendment dated November 13, 2003
Reply to Office Action dated August 14, 2003
Attorney Docket No. GJH-0017 (P1998J0107C)

REMARKS

Claim 30 has been cancelled.

Claims 5 and 10 have been amended to correct dependencies.

REJECTIONS UNDER 35 U.S.C. 112, FIRST PARAGRAPH

Claims 5 and 10-13 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

EXAMINER'S POSITION

The Examiner states that claims 5, and 10-13 depend from canceled claim 4.

APPLICANTS' POSITION

Applicants have amended claim 5 to depend from claim 1, and claim 10 to depend from claim 5. Applicants take the position that this overcomes the dependency from canceled claim 4 for claims 5 and 10-13.

The Examiner is requested to reconsider and withdraw this rejection.

EXAMINER'S POSITION

The Examiner has also rejected claim 30. The Examiner states that it is unclear how a distillate fuel composition having the claimed total aromatics and polynuclear aromatics could possess the claimed ratio of total to polynuclear aromatics.

APPLICANTS' POSITION

Applicants have canceled claim 30 to overcome the Examiner's rejection.

The Examiner is requested to withdraw this rejection.

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FIRST REJECTION UNDER 35 U.S.C. 103(a)

Claims 1-3, 6-9, 14-21, 31 and 32 are rejected under 35 U.S.C. 103(a) as being obvious over United States Patent Number 6,150,575 Angevine et al. ("Angevine").

EXAMINER'S POSITION

It is the Examiner's position that Angevine teach diesel fuel having good ignition qualities, good combustion emission performance, and good low temperature characteristics. Such a fuel is characterized as having a cetane number of at least 45, a total aromatics content of 10 to 15 wt.%, a polynuclear aromatics content of less than 11 wt.%, and a sulfur content of not more than 50 ppm. The Examiner points out that Table 3 of Angevine discloses preferred compositional parameters for the fuel and that Table 4, Example 1 teaches a diesel fuel having 14 wt.% total aromatics, 0.6 wt.% polynuclear aromatics, 13 ppm sulfur, an initial boiling point of 183°C, T10 point of 225°C, and a final boiling of 360°C.

The Examiner states that the instant claims are directed to compositions comprising "about 20 wt.% aromatics," i.e. the claims include compositions wherein the total aromatics are less than 20 wt.%. Accordingly, the Examiner takes the position that it should have been obvious to one having ordinary skill in the art at the time the invention was made to increase the amount of aromatics in the diesel fuel taught by Angevine to a maximum amount of "about 20 wt.%" based on the expectation that such a diesel would have similar properties. The Examiner also takes the position that the claimed T95 point is obvious in light of Example 2 of Angevine.

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Attorney Docket No. GJH-0017 (P1998J0107C)

APPLICANTS' POSITION

Applicants respectfully disagree with the Examiner as it is their position that Angevine does not render obvious the instantly claimed invention. The instantly claimed invention, as amended, requires that the distillate fuel composition have a Total Aromatics concentration of from about 20-35 wt.%, as described in Claims 1, 22, 31, and 32.

There is no teaching in Angevine to suggest that the amount of Total Aromatics disclosed and claimed therein should be increased to the presently claimed range. Angevine discloses that the "board value" of Total Aromatics is less than 15, and that the "preferred value" is between 10-15, see Table 3 of Angevine. Table 3 also discloses an optimum value but gives no range. However, col. 4, states that "the observance of certain narrower ranges within the ranges described above may however lead to an enhancement of overall performance, an improvement in product economics or both. Suitable preferred ranges are set out in Table 3, using the same tests as listed in Table 2 above.", see Angevine col. 4, lines 53-58. Table 2 of Angevine discloses a Total Aromatics content of between 10-15 wt.%. Further, all of the Examples contained within the Angevine patent are below 15 wt.% Total Aromatics.

Therefore, Angevine does not teach nor suggest that one should have a Total Aromatics content within the presently claimed range of 20-35 wt.%. Instead, Angevine teaches that narrower ranges within the 10-15 wt.% Total Aromatics range would be

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beneficial. There is no disclosure that one should increase the range of Total Aromatics beyond 15 wt.%. Instead, Angevine teaches to limit the amount of Total Aromatics to lower than 15 wt.%.

The Examiner is requested to reconsider and withdraw this rejection.

SECOND REJECTION UNDER 35 U.S.C. 103(a)

Claims 1-3, 6-9, 14-32 are rejected under 35 U.S.C. 103(a) as being obvious over United States Patent Number 5,976,201 Barry, et al. ("Barry").

EXAMINER'S POSITION

It is the Examiner's position that Barry teaches diesel fuels comprising straight run distillates having an end point no greater than 300°C, a cetane number in the range of 55 to 60, a specific gravity not greater than 0.83, a sulfur content not greater than 0.1 wt.%, and an aromatics content of 18 to 25%. The Examiner also states that the final end point of these fuels is held below 315°C and preferably below 300°C.

The Examiner states that although Barry does not disclose a specific fuel having all of the presently claimed characteristics, it would have been obvious to arrive at the instantly claimed invention.

APPLICANTS' POSITION

Applicants respectfully disagree with the Examiner, as it is their position that Barry does not render obvious the instantly claimed invention. The instantly claimed distillate fuel compositions boil in the range of about 190°C to 400°C.

Barry states at col. 2, lines 33-44 that it is important to limit the boiling point of the distillate fuel compositions disclosed therein to below 315°C and preferably below

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300°C, as pointed out by the Examiner. As stated above, the instantly claimed distillate fuel compositions boil in the range of about 190°C to 400°C, thus providing for a final boiling point outside of that disclosed by Barry, i.e. 400°C.


Thus, since Barry teaches that it is an important feature of the invention that the distillation of the fuels disclosed therein be limited to a final boiling point below 315°C and preferably below 300°C, one would not have been taught to explore distillate fuel compositions having boiling point ranges as high as is presently claimed.

The Examiner is requested to reconsider and withdraw this rejection.

Based on the preceding arguments and amendments, the Examiner is requested to reconsider and withdraw all rejections, and pass this application to allowance. The Examiner is encouraged to contact applicants' attorney should the Examiner wish to discuss this application further.

Respectfully submitted:

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